Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

REVIEWS OF BOOKS.

Logik. Von BENNO ERDMANN. Erster Band: Logische Elementarlehre. Halle. 1892. — pp. xv, 632.

This first volume of Professor Erdmann's Logic is extremely rich in content, and, like several other recent logical treatises, such as Sigwart's and Wundt's, it defies a summary judgment, and must in the main be tested by long usage. The noted student of Kant's philosophical development does here no injustice to his well-earned reputation for minuteness and carefulness of scholarship. Where close examination is required, Erdmann does not spare pains, nor does he fear to weary his readers. On the other hand, breadth of view is secured by two devices, not unfamiliar in themselves, but here carried out with great industry. The one device is that of the historical comparison of logical doctrines, the other that of great variety in the choice of concrete examples of logical forms, principles, and processes. The historical comparisons are, to be sure, very briefly set forth, in summary paragraphs, usually placed at the conclusion of each new positive statement of Erdmann's own views. The examples, on the other hand, are sometimes almost capriciously multiplied. Yet everywhere a marvellous range of literary and historical knowledge is shown, and logical authors long since almost forgotten are brought down from dusty shelves to illuminate, often with surprising vividness, our author's argument. The recent progress of logical discussion, since Ueberweg and Lotze, is also borne in mind; nearly all the "burning questions" of the logic of the past two decades are touched upon; our author has his views concerning the nature of negative propositions, concerning the "impersonals," concerning "existential" judgments, concerning hypothetical judgments, in short concerning the favorite problems of modern continental logic in general.

Characteristic for our author's whole attitude is, meanwhile, his position with regard to the "Algebra of Logic," which Schroeder has recently so well introduced to German readers. Erdmann postpones until a later volume (so I understand his statement on p. 431) "die grundsätzliche Auseinandersetzung mit diesem Formalismus, der dem wissenschaftlichen Gebrauch des Denkens fremd ist, und fremd bleiben muss," but he everywhere condemns its method. Boole's algebraic formulation of the principle of contradiction, in its relation to the formula

$x = x^2$, $\therefore x(1 - x) = 0$, involves (p. 367) one of the "verwunderlichsten Irrungen der mathematischen Logik," and "needs no criticism." There are a number of references of the same general character scattered through this volume. Nor is the reason of Erdmann's antipathy far to seek. He is, namely, a pronounced opponent of the "*Subsumtionstheorie*" of the judgment. And the theory of the judgment is, as he tells us already in his preface, the "Brennpunkt der Logik." The geometrical method of symbolizing judgments is the natural expression (p. 247, p. 446 *sq.*) of this false subsumption theory, and, "roh" as it is, "may be of some use to the beginner." But Erdmann loses no opportunity to warn us against any extension or elaboration of it. In his dislike of the "mathematisirende Logik," and of its "formalism," Erdmann reminds us in fact of Hegel's attitude towards so much of the mathematical tendency as existed in the logic of his own time, and one is rather surprised to find Erdmann himself putting Hegel (pp. 247, 248) in the wrong company, in consequence of the latter's account of "das abstrakte Urtheil." In many respects, as a fact, Erdmann's notion of the nature of the thinking process brings him fairly near to Hegel, although in other respects the two are very far apart.

Our author's personal theory of the judgment allies him, meanwhile, to the teachers of the "Logic of Intension" in general. Intension determines extension (p. 151). The extension is the "totality of the species in a genus" (p. 134), but has nothing to do with the "Anzahl der einzelnen Exemplare" of the genus in question. The extension of the class *match*, for example, is not decreased when you burn this individual match, or when you manufacture new matches of an old sort (*loc. cit.*). Not only is intension thus prior to extension, and of far deeper significance than the latter, but, in view of the rejection of all forms of the "subsumption theory," we are driven (p. 261) to define the judgment as a "Gleichheitsbeziehung der Einordnung" — a technical expression which needs some elucidation, but which is at all events the embodiment of an interpretation of the process of judgment in terms of intension. The predicate of a judgment points out elements or groups of elements which, intensively regarded, *were already immanent* in the idea of the subject. Such is Erdmann's view.

Our elucidation of the foregoing expression must needs be inadequate, since our author's intricate argument defies successful condensation. But it is upon this "focal" point that all the rays of this treatise are indeed brought to bear; and a hint of the nature of this doctrine involves of necessity a characterization of the whole book. And such a characterization, inadequate as it must needs be, we have here to undertake.

In general, in his opening paragraphs, Erdmann defines Logic as the "science of the formal presuppositions of valid judgments concerning the objects of inner and outer perception" (p. 15). As *formal*, the presuppositions which logic studies, *i.e.* the presuppositions of "valid," or of "scientific" thinking, are to be distinguished from those *material* presuppositions which are the topic, on the one hand of metaphysics, on the other hand of special science. Logic is then (p. 16) a general or formal "normative" science of the thinking process. Its office is thus indeed different from that of the psychology of the thinking process (p. 18); but it is impossible to study norms without understanding actual processes, and if logic (p. 19) is to avoid barren schematism, the logician must base his study upon a psychological analysis of the natural history of the thinking process. To such a natural history Erdmann devotes, in fact, considerable space. The first book of his treatise (pp. 35–186), on the "*Gegenstände des Denkens*," contains much psychological material. By "objects of thought," Erdmann means the sum total of the "*Vorgestelltes*," *i.e.* of that of which we have ideas (p. 81). In his own metaphysic disposed to realism, Erdmann endeavors as far as possible to separate logical and metaphysical problems (pp. 10–12, 77, 81–85). The "*Gegenstände der Vorstellungen*" or "*des Denkens*" are therefore not, in general, for the logician, the things in themselves, or "*das Transcendente*" (p. 10), but the "objects whose elements are given to us in inner or outer perception" (p. 12). These objects it is that in science we are directly thinking about. "*Das Transcendente*" we conceive only indirectly through the objects of inner or outer experience, and it is in regard to the latter that there arises the general question of Logic (p. 12), *viz.*: "What is our right to assume the possibility of valid judgment concerning '*das Vorgestellte*'?" "*Das Vorgestellte*" itself consists either of "original objects" or of "derived objects" (p. 38, "*ursprüngliche und abgeleitete Gegenstände*"). The former correspond to Locke's "ideas" of outer and inner sense. The latter include the ideas of memory, and *die abstrakten Vorstellungen*. As for Erdmann's use of *Vorstellung*, as he explains it on p. 36, the word relates to "all contents of consciousness in which objects are presented," and "unconscious *Vorstellungen*" are self-contradictions. On the other hand, however, the process of *Apperception* (the word being used in the Herbartian sense) involves mental processes which themselves remain in large part unconscious (p. 42), and Erdmann makes considerable use of the category of the unconscious in mental life, his view of this matter coloring important logical analyses in the course of the book (*cf.* p. 77, and the argument on p. 210 with regard to Kant's doctrine of the "synthetic" judgments of perception). On the basis of this general theory of Apperception, Erdmann introduces, on p. 45,

a very characteristic doctrine concerning the process of abstraction. In abstraction, namely, one does not really get rid of the diverse features of individual objects and retain only the like elements as giving an idea of a class. The association of the like elements, in a series of objects of experience, with the unlike elements, remains for our consciousness actually the same as at first, except that it is "not so close" as it would be in case one conceived a single individual in isolation. Consciousness is, for our author, always concrete and synthetic. Our relative abstractions we accomplish, in the more complex cases, only by virtue of bringing into consciousness a series of *Vorstellungen* whose common features are strengthened through *Verschmelzung*, while the individual features of each *Vorstellung* are kept in the background by virtue of that very flow of consciousness which helps us to attend to the common features themselves. Abstraction is an affair of attention (p. 48). It does not really sunder, it emphasizes; and for its emphasis it is largely dependent upon the flow of consciousness, which presents the *Vorstellungen* that are to be the object of the abstracting process.

A passage from this theory of abstraction to the theory of judgment, as indicated above, is contained in our author's doctrine of the significance of language for the thinking process. Abstract ideas are made possible by means of "sprachlicher Ueberlieferung" (p. 49). The imagination is excited to the formation of abstract ideas by the aid and the usage of language (p. 51). In particular the whole activity of judgment depends upon language (p. 20 *sqq.*). Perception and mere *Vorstellen* can go on without speech; but judgment, which (p. 1) is the essential characteristic of the thinking process ("unter Denken soll nichts anderes als Urtheilen verstanden werden"), is impossible without some sort of language (pp. 23, 234). Erdmann undertakes more than once, and at considerable length, a psychological proof of this assertion; but admits (p. 224) that a final *experimentum crucis* is still lacking to demonstrate his position, and no doubt wisely rejects the evidence offered by those cases of *aphasia* which have been observed and cited with respect to this problem, as insufficient to prove any unmistakable result. Our author is meanwhile far from supposing that the language process is *identical* with the thinking process, and the observations on pp. 229–231 concerning the relations of the two processes are very instructive, even if one questions Erdmann's hypotheses concerning the "unconscious" side of the mental life at moments of reading or of hearing a discourse.

Judgment then depends upon language. The data of inner and outer perception, organized through the apperceptive process, give us an enormously complex *Vorstellungsleben*, where the *Verschmelzung* of similar elements in series of allied ideas gives rise to multitudinous sorts and

groupings of *Abstrakte Vorstellungen*. These in their turn are formed, held, and communicated under the influence of language. Thinking, however, is judging concerning these results of our experience and of our apperceptive process. In what does this act of judgment consist? Erdmann replies: Not in bringing together already formed ideas and uniting them two and two by a fresh "function of unity"; not in subsuming one under another; not in uniting mere names of things; not even in identifying ideas, nor yet in sundering ideas already united. On the contrary, the *Wahrnehmungsurtheil*, the simplest case of all, already typifies (p. 205) the essential nature of the process of judgment. When I say, *This paper is four-cornered*, I do not sunder the object of my sight into two thought-objects; nor do I bring into a new union two significant ideas before sundered. Neither mere analysis nor mere synthesis takes place here. But (p. 203) while the paper remains all the while just as it is for my consciousness, I bring in succession ideas of words, *Wortvorstellungen*, into my mind, and observe that two of these words, *i.e.* the pair in the compound *four-cornered*, express a meaning which *in this or that respect is identical with some of the facts already presented in my one and indivisible perception of the paper*. My perception then is, if you will, a synthesis in experience, a *Verflechtung*, of many perceptual facts. Into the unity of this perception my thought introduces, according to Erdmann's theory, no sundering whatever. What was united in the *Vorstellung* before I judged, remains united while I judge, and stays united afterwards. The new thing that happens while I judge is for the first a *Vorstellungsverlauf*, consisting of words. I observe meanwhile that these words express meanings which are identical with something that is already immanent in the perceptive unity itself. My judgment is thus a comment in successive *Wortvorstellungen* upon what already coexists in unity in the subject of my judgment. As such a comment my judgment finds predicates for this subject, but does not change the content of the latter.

The "predicative relation" is in general thus typified. The predicate is in meaning discovered to be immanent in the subject. This discovery is what the judgment accomplishes. The predicate is represented by a *Wortvorstellung*, which in so far comes to the subject from without. Yet the act of judgment does not create, but only finds the unity of the subject and predicate idea, and finds this unity as having been already existent in the subject before the judgment was made. Here is then some indication of what Erdmann means by his *Gleichheitsbeziehung der Einordnung*, which one may freely translate as the "discovery of an identity between the meaning of the predicate and a portion of the meaning already immanent in the subject."

The relation of this view of the thinking process to Erdmann's former

insistence upon the inseparability of the abstractly common and the individually peculiar elements of the objects of our generalizing consciousness, is not hard to see. There is considerable difficulty, of course, in carrying through such a notion of the process of judgment as this one in case of the more abstract and complex forms of judgment, *e.g.* in case of judgments of relation, and in the case of seemingly purely constructive judgments, such as definitions. But our author works patiently, and with much success. Negative judgments he regards with Sigwart as rejections of attempted positive judgments, and not as themselves a species of simple judgment (pp. 349–363). The impersonals proper are simply judgments whose subjects are left very indefinite (p. 307). On the whole (p. 262) he defines a judgment as "The inclusion of one object (of consciousness) in the (intensive) content of another, — this inclusion (1) being conceived as in logical immanence, (2) being determined by the identity of content of the material constituents, and (3) being expressed in a proposition."

There is here no space to follow our author into the applications of this theory. One is not surprised to find that, with his eyes fixed upon so interesting a psychological problem, he should almost wholly neglect the considerations that to many of us make the 'Algebra of Logic' so promising and important a region of exact inquiry; nor are most philosophical students likely to be satisfied with the sceptical discussion of the nature of logical necessity (pp. 372–378); and the observations upon probability, mathematical and non-mathematical (pp. 388 *sqq.*), have appeared to the present writer especially unsatisfactory. But if these matters seem to us to indicate our author's limitations, we have to thank him on the whole for a most learned and stimulating study of the problems of philosophical logic, and particularly of the problem of the judgment.

The discussion of the syllogism is extended, and full of interesting matter. A later volume is to be devoted to a general Doctrine of Method.

JOSIAH ROYCE.

Philosophische Propädeutik. Unter Mitwirkung von Professor ALEXIUS MEINONG, verfasst von Professor ALOIS HÖFLER. I. Theil Logik. Prag, Wein, and Leipzig, 1890. — pp. xiv, 244.

Both Dr. Höfler and Dr. Meinong have written on the study of philosophy in the gymnasium, and in this Logic the method of presenting the subject is no less suggestive than the material which is presented. The author quotes in his preface Bonitz's words, recommending "a strict limitation of what is given to the student as dogma," and "the fullest